

### REMARKS

The present application was filed on July 18, 2003 with claims 1-37. Claims 1-16 and 24-33 remain pending and claims 1 and 24 are the pending independent claims.

In the outstanding Office Action dated April 18, 2006, the Examiner: (i) rejected claims 1-3 and 9-11 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2004/0125147 to Liu et al. (hereinafter "Liu") in view of the NEC Corporation & NEC Design, Ltd. Webpage (hereinafter "NEC"); (ii) rejected claims 4-8 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of NEC and U.S. Patent No. 4,575,722 to Anderson (hereinafter "Anderson"); (iii) rejected claims 12-16 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of NEC and U.S. Patent No. 6,414,422 to Rafii et al. (hereinafter "Rafii"); (iv) rejected claims 24-32 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of Anderson and NEC; and (v) rejected claim 33 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of Anderson, NEC and Rafii.

In this response, Applicants traverse the rejection and respectfully request reconsideration of the present application in view of the following remarks.

With regard to the rejection of claims 1-3 and 9-11 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of NEC, Applicants respectfully assert that the cited combination fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143.

M.P.E.P. §2143 states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicants respectfully believe that none of the requirements have been met.

First, Applicants assert that no motivation or suggestion exists to combine Liu and NEC in a manner proposed by the Examiner, or to modify their teachings to meet the claim limitations. For at least this reason, a prima facie case of obviousness has not been established.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” *In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” *Id.* at 1343-1344.

In the Office Action, beginning on page 3, last paragraph, the Examiner provides the following statement to prove motivation to combine Liu and NEC:

“... it would have been obvious ... to use the idea of projecting images in different planes as taught by (NEC) with the computing device taught by Liu et al. such that the computing device would project the user input and output displays from the projector onto two different surfaces in order to provide for an improved personal information terminal that provides the user with a standard computer setup that user’s are accustomed to.”

Applicants submit that the statement above is based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record which supports the proposed combination.

It is well-settled law that “teachings of references can be combined *only* if there is some suggestion or incentive to do so.” *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original). Moreover, in order to avoid the improper use of a hindsight-based obviousness analysis, particular findings must be made as to why one skilled in the relevant art, having no knowledge of the claimed invention, would have selected the components disclosed by Liu and NEC in the manner claimed (*See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)). The Examiner’s conclusory statements do not adequately address the issue of motivation to combine references. “It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to ‘[use] that which the inventor taught against its teacher.’” *In re Sang-Su Lee*, 277 F.3d

1338, 1344 (Fed. Cir. 2002) (quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)).

Secondly, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Liu and NEC. For at least this reason, a prima facie case of obviousness has not been established. Applicants do not believe that Liu and NEC are combinable since it is not clear how one would combine them. For example, it is not clear how the single projector device of Liu may be combined with the dual projector device of NEC to generate user input and user output displays onto different surfaces using one projector. No guidance was provided in the Office Action as to how the references can be combined to achieve the present invention. However, even if combined, for the sake of argument, they would not achieve the techniques of the claimed invention.

Lastly, the collective teaching of Liu and NEC fails to suggest or to render obvious at least the elements of independent claim 1 of the present invention. For at least this reason a prima facie case of obviousness has not been established.

Independent claim 1 recites a method of providing a user interface for a computing surface. A user input display is projected from a projector of the computing device onto a first surface. A user output display is projected from that projector of the computing device onto a second surface. The first surface and the second surface are disposed in different planes.

Liu discloses a device and method for generating a virtual keyboard and display. NEC discloses a device that uses two projectors, one to generate a virtual keyboard and the other to generate a display. The Examiner contends that the combination of Liu and NEC teaches or suggests all the limitations of independent claim 1. Applicants respectfully disagree.

Liu describes a keyboard and display that are generated on the same surface. NEC describes a device generating a keyboard on one surface and a display on another surface using two different projectors. The method of independent claim 1 utilizes a single projector to project onto two separate surfaces. Using more than one projector, as described by NEC, fails to meet the single projector limitation of independent claim 1. Thus, the combination of Liu and NEC fails to disclose the projection of a user input

display onto a first surface and a user output display onto a second surface from a single projector, where the first and second surfaces are disposed in different planes.

Dependent claims 2, 3 and 9-11 are patentable at least by virtue of their dependency on independent claim 1, and also recite patentable subject matter in their own right. Accordingly, withdrawal of the §103(a) rejection of claims 1-3 and 9-11 is respectfully requested.

With regard to the rejection of claims 4-8 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of NEC and Anderson, Applicants respectfully assert that the cited combination fails to establish a prima facie case of obviousness as described above. First, Applicants assert that no motivation or suggestion exists to combine Liu, NEC and Anderson in a manner proposed by the Examiner, or to modify their teachings to meet the claim limitations. For at least this reason, a prima facie case of obviousness has not been established.

In the Office Action on page 6, last paragraph, the Examiner provides the following statement to prove motivation to combine Anderson with Liu and NEC:

“... it would have been obvious ... to use mirror system taught by Anderson with the dual image system taught by the combination of Liu et al. and (NEC) in order to simultaneously view both images on different surfaces.”

Applicants submit that the statement above is based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record which supports the proposed combination. The Examiner’s conclusory statements do not adequately address the issue of motivation to combine references.

Secondly, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Liu, NEC and Anderson. Applicants do not believe that Liu, NEC and Anderson are combinable since it is not clear how one would combine them. For example, it is not clear how the helmet mounted device in Anderson may be combined with Liu and NEC to generate a user input display

and a user output display onto different surfaces using only one projector. No guidance was provided in the Office Action as to how the references can be combined to achieve the present invention. However, even if combined, for the sake of argument, they would not achieve the techniques of the claimed invention.

Lastly, the cited combination fails to teach or suggest all the claim limitations. Anderson discloses a helmet-mounted magneto-optic display, and fails to disclose the projection on to surfaces on different planes. Therefore, Anderson fails to remedy the deficiency described above with regard to the limitations of claim 1. Thus, the combination of Liu, NEC and Anderson fails to disclose the projection of a user input display onto a first surface and a user output display onto a second surface from a single projector, where the first surface and the second surface are disposed in different planes. Dependent claims 4-8 also recite patentable subject matter in their own right. Accordingly, withdrawal of the §103(a) rejection of claims 4-8 is respectfully requested.

With regard to the rejection of claims 12-16 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of NEC and Rafii, Applicants respectfully assert that the cited combination fails to teach or suggest all the claim limitations. Rafii discloses a method and apparatus for entering data using a virtual input device, and fails to remedy the deficiency described above with regard to claim 1. Thus, the combination of Liu, NEC and Rafii fails to disclose the projection of a user input display onto a first surface and a user output display onto a second surface from a single projector, wherein the first and second surfaces are disposed in different planes. Dependent claims 12-16 also recite patentable subject matter in their own right. Accordingly, withdrawal of the §103(a) rejection of claims 12-16 is respectfully requested.

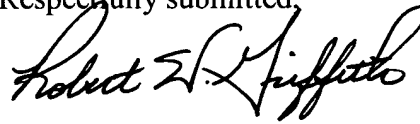
With regard to the rejection of claims 24-32 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of Anderson and NEC, Applicants respectfully assert that the cited combination fails to establish a prime facie case of obviousness as described above with regard to claims 4-8. More specifically, Applicants respectfully assert that: no motivation exists to combine Liu, NEC and Anderson in a manner proposed by the Examiner; there is no reasonable expectation of success in achieving the present invention through the combination of Liu, Anderson and NEC; and that the combination fails to teach or suggest all of the limitations of the claims as described above with regard

to claims 4-8. Dependent claims 25-32 are patentable at least by virtue of their dependency from independent claim 24, and also recite patentable subject matter in their own right. Accordingly, withdrawal of the §103(a) rejection of claims 24-32 is respectfully requested.

With regard to the rejection of claim 33 under 35 U.S.C. §103(a) as being unpatentable over Liu in view of Anderson, NEC and Raffi, Applicants respectfully assert that the cited combination fails to establish a prima facie case of obviousness as described above. Thus, the combination of Liu, Anderson, NEC and Raffi fails to teach or suggest a mirror system, using a single projector, in which a nonreflected portion of an image is projected to a first surface and a reflected portion of the image is projected to a second surface disposed in a different plane than the first surface. Accordingly, withdrawal of the §103(a) rejection of claim 33 is respectfully requested.

In view of the above, Applicants believe that claims 1-16 and 21-33 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert W. Griffith", written in a cursive style.

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